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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,429	12/28/2001	Alain Benayoun	FR920000070	1925

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INTELLECTUAL PROPERTY LAW
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EXAMINER	
LEVITAN, DMITRY	

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/683,429	BENAYOUN ET AL.	
	Examiner	Art Unit	
	Dmitry Levitan	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 January 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Amendments, filed 01/27/06 and 2/16/06, have been entered. Claims 1-14 remain pending.

Drawings

1. The drawings were received on 1/27/06. These drawings are approved.

2. In light of Applicant's amendment, the objections to the drawings have been withdrawn.

Claim Objections

In light of Applicant's amendment, the objections to the claims have been withdrawn.

Claim Rejections - 35 USC § 112

1. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 limitation "selecting ... at each clock cycle" is unclear, because it is not understood when the selecting should occur, as there are no time units are associated with "each clock cycle" and it is unclear if the clock belongs to one of the LANs or the switch.

Claim 13 limitation "too much overflow" is unclear, because it is not understood what amount of overflow is considered too much and what is not.

Claim Rejections - 35 USC § 103

2. Claims 1-3, 10, 12 and 13 are rejected (as best understood) under 35 U.S.C. 103(a) as being unpatentable over Holden (US 5,557,607) in view of Yamazaki (US 6,205,145) and Genda (US 5,509,008).

3. Regarding claims 1 and 2, Holden teaches a data transmission system, comprising:

A packet switch/packet switch module (switch element, shown on Fig. 1 and 1:50-65), interconnecting the plurality of input and output terminals (input terminals 3, 5 and 7 with output terminals 9, 11 and 13, as shown on Fig. 1) wherein a packet transmitted by any of the input terminal to the packet switch includes a header containing at least the address of the output terminal to which the packet is forwarded (switch on Fig.1 is disclosed as an ATM switch 1:30-50, wherein ATM cells inherently comprise headers with address to direct the cell to the output terminal, because the address is essential for the system operation), the packet switch includes a plurality of input ports and corresponding plurality of output ports both being respectively connected to the plurality of the terminals (the terminals on Fig 1 inherently comprising ports, because ports are essential to connect terminals to the signal buses on Fig. 1) each pair of input port and output port defining a cross point (cross points 31-39 on Fig. 1 and 1:40-50);

The packet switch comprises a memory block at each cross point (buffer memories 2, 4, 6, 8, 10, 12, 14, 16 and 18 on Fig. 1 and 1:52-56), the memory block at each cross point includes a data memory unit for storing a data packet (buffers 1:52-56) and a first memory controller which determines from the packet header whether the packet is to be forwarded to the output port associated with the memory block and storing the packet (inherently part of the system, because the memory controllers are essential for the system operation to use the packet/cell header to

identify the packets/cells directed to a particular cross point and an associated output port, as the packets/cells are directed to a bus connected to numerous cross points as shown on Fig. 1),

Holden does not teach terminals as LAN adapters and a plurality of schedulers for forwarding packets at each clock cycle, when predetermined criteria are met.

Yamazaki teaches a data transmission system having a plurality of networks interconnected by a hub (Switch fabric on Fig. 1 interconnected with variable length frame networks, shown on Fig. 1 and 1:13-40) including a plurality of adapters respectively connected to the plurality of networks (portions of termination nodes N1-N6 on Fig. 9 and 10 9:25-45).

Genda teaches forwarding/scheduling packets at each clock cycle, when a predetermined criteria are met (forwarding packets/cells in switch on Fig. 1, by an inherent portions of cross-points circuitry operating with control circuit 1050, 1:28-42, under the control of clock signal generator/scheduler 1025 1:20-50, as shown on Fig. 2 and comprising a predetermined criteria of receiving an ACK to confirm the completion of the previous packet/cell transfer, to control the speed of the switch).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add adapters for networks, including LANs, of Yamazaki and a plurality of schedulers for forwarding packets at each clock cycle, when a predetermined criteria are met of Genda to the system of Holden to make switch operable with numerous popular LANs and to control the operational speed of the switch.

4. Regarding claim 3, Genda teaches the memory block to comprise a header validation control block to determine whether the header of a data block received from the input port contains the address of the output port associated with the cross-point (inherently part of the

system of Holden, because detection and storage of the packets corresponding the cross point output port is essential for the system as shown on Fig. 1 to avoid the cross point memory overflow caused by storing of all packets directed to the numerous cross points connected to the same input bus 1:23-50).

5. Regarding claims 10, 12 and 13, Holden teaches overflow situation at the cross point memory blocks, forcing to discard packets/cells 1:40-50.

Holden, Genda and Yamazaki, as disclosed in the rejection of claims 1 and 2, do not teach sending overflow signal from the memory blocks to the scheduler.

Yamazaki teaches sending an overflow signal to the controller to report the congestion situation (signal from buffer means 430 to the congestion control means 70 on Fig. 6 and 7:62-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add overflow signal from the memory block to the scheduler/controller of Yamazaki to the system of Holden, Genda and Yamazaki to avoid the overflow situation in the switch.

In addition, regarding claims 12 and 13, Holden, Genda and Yamazaki, as disclosed in the rejection of claims 1 and 2, do not teach back-pressure mechanism to send back-pressure signals to the input adapters to reduce the flow of data.

Official notice is taken that back-pressure mechanism to receive an overflow control signals and send back-pressure signals to the input adapters to reduce the flow of data is well known and expected in the art to avoid an overflow situation.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add back-pressure mechanism to send back-pressure signals to the input adapters to reduce the flow of data to the system of Holden, Genda and Yamazaki to avoid the overflow situation in the switch.

Allowable Subject Matter

6. Claims 4-9, 11 and 14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dmitry Levitan
Patent Examiner.
03/03/06